FIG. 1. *Penstemon thurberi*.

REFERENCES

KEARNEY, T.H. and R.H. PEEBLES. 1951. Arizona Flora. University of California Press, Berkeley.

MARTIN, W.C. and C.R. HUTCHINS. 1982. A flora of New Mexico. J. Cramer, in der A.R. Gantner Verlag Kommanditgesellschaft.

WOOTON, E.O. and P.C. STANDLEY. 1915. Flora of New Mexico. Contr. U.S. Natl. Herb. 19:1–794. Government Printing Office, Washington.

EUPHORBIA GRAMINEA (EUPHORBIACEAE) NEW TO FLORIDA—*Euphorbia graminea* Jacq. apparently came into southern Florida during the late 1980s as a weed in horticultural stock. John Popenoe found plants without flowers in nurseries for several years (personal communication), but it was not until Jan-Feb 1993 that Popenoe and I independently found flowering populations of *E. graminea* separated by several miles. Plants of this species were found again, and in new areas, during the fall of 1993 so it seems fair to regard the species as established in southern Florida.

Euphorbia graminea is an erect annual reaching 35 cm in height with leaves well separated along the stem and branches. Stem leaves are 2-4 cm long, alternate and, on all Florida plants seen, are ovate with undulate margins. Leaves on the branches of the inflorescence are slightly shorter, opposite or nearly so and narrowly elliptic. Cyathia are terminal or solitary in the axes

of dichasia and about 1 mm long. A variable number (1-4) of glands is produced along the upper edges of the cyathium, with many specimens having two glands on the cyathium. Glands have white appendages that are about equal in size to the glands. The capsule is held beneath the gland appendages until maturity and may not be apparent without close inspection. Mature capsules are about 3 mm long and wider than long.

Euphorbia graminea is widespread from southern Mexico to northern South America, and has weedy tendencies throughout this range. It shows considerable variation in leaf shape and pubescence, leading to the proposal of several subspecific groups. There is no consensus on the validity of these subspecific taxa (Webster and Burch 1968), so no attempt was made to identify the Florida plants below the specific level.

Within the genus *Euphorbia* (sens. lat.), *E. graminea* is the lectotype species of the section *Cyttarospermum* (Wheeler 1943). It has also been treated under the segregate genus *Eumecanthus*. This group is characterized by petiolate leaves and ecarunculate seeds with an areolate pattern of raised bumps covering the surface (Subils 1977).

All collections from Florida so far have been made in cultivated sites. Within these cultivated areas, the *Euphorbia* evidently prefers bare patches. Seeds are dispersed locally by the explosively dehiscent capsules, but the primary means of spread in southern Florida seems to be through human transport of ornamental plants, especially field grown trees.

Voucher specimens: FLORIDA. **Dade Co.:** weed in residential lawn, near Homestead, 28 Jan 1993, *Herndon 3338* (FTG); weed at the Dave Romney farm, Homestead, 5 Feb 1993, *Popenoe 2476* (FTG); growing in planted bed along the right-or-way of Old Cutler Road, ca. 1/4 mi S of Fairchild Tropical Garden, 20 Feb 1993, *Popenoe 2480* (FTG); weed in potted plant by residence, Perrine, 20 Aug 1993, *Herndon 3346* (FTG).

I am grateful to John Popenoe for sharing his knowledge of the early history of this species in Florida.—*Alan Herndon, Department of Biological Sciences, Florida International University, Miami, FL 33199, U.S.A.*

REFERENCES

SUBILS, R. 1977. Las especies de *Euphorbia* de la Republica Argentina. Kurtziana 10:8–248.

WEBSTER, G.L. and D. Burch 1968. Family 97. Euphorbiaceae. In: Woodson et al., Flora of Panama, Part VI. Ann. Missouri Bot. Gard. 54:211–350.

WHEELER, L.C. 1943. The genera of the living Euphorbiaceae. Amer. Midl. Naturalist 30:456–503.